

ROTARY DISTRIBUTION APPARATUS

ABSTRACT OF THE DISCLOSURE

A rotary distribution apparatus includes a fixed inner distribution member (12) with inner conduit zone; a rotatable distribution member (16) rotatable about the fixed inner distribution member; a plurality of fluid distribution chambers (18) located between the fixed inner distribution member and the rotatable outer distribution member; each fluid distribution chamber having a fixed port (20) in the fixed inner distribution member to which a fixed supply or return conduit for a fluid can in use be connected and at least one distribution port (22) in the rotatable outer distribution member; at least one indexing arrangement (24) including a rotatable indexing member (26) and a fixed indexing member (28); a plurality of passageways (30, 32, 38, 40) extending through each of the rotatable and fixed indexing members (26, 28), the plurality of passageways each having indexing ports (30.2, 32.2, 38.2, 40.2) and connection ports (30.1, 32.1, 38.1, 40.1) with the indexing ports being provided in an indexing surface (36); and the connection ports (30.1, 32.1) of the rotatable indexing member (26) in use being connected to the distribution ports (22) of the distribution chambers by connecting conduits, and the connection ports (38.1, 40.1) of the fixed indexing member in use being connected to process chambers by fixed conduits; so that, in use, when the rotatable outer distribution member, the rotatable indexing member and the connecting conduits are rotated, fluid fed to a fluid distribution chamber (18) is sequentially fed to each process chamber and returned from each process chamber to another fluid distribution chamber (22) as the indexing ports (30.2, 40.2) of the fixed indexing member (28).

60445296 v1

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 April 2004 (08.04.2004)

PCT

(10) International Publication Number
WO 2004/029490 A1

(51) International Patent Classification⁷: **F16K 11/072**

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(21) International Application Number:

PCT/IB2003/004191

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(22) International Filing Date:

25 September 2003 (25.09.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2002/7798 27 September 2002 (27.09.2002) ZA

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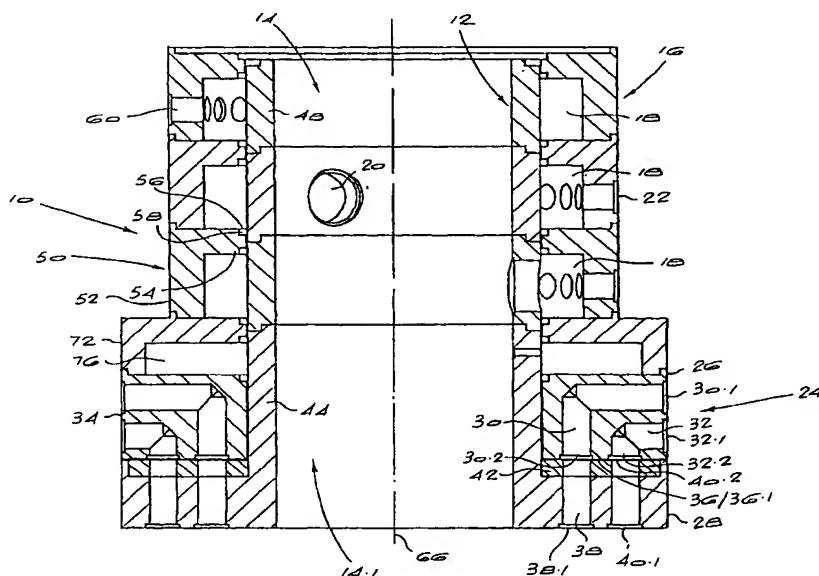
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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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plurality of passageways (30, 32, 38, 40) extending through each of the rotatable and fixed indexing members (26, 28), the plurality of passageways each having indexing ports (30.2, 32.2, 38.2, 40.2) and connection ports (30.1, 32.1, 38.1, 40.1) with the indexing ports being provided in an indexing surface (36); and the connection ports (30.1, 32.1) of the rotatable indexing member (26) in use being connected to the distribution ports (22) of the distribution chambers by connecting conduits, and the connection ports (38.1, 40.1) of the fixed indexing member in use being connected to process chambers by fixed conduits; so that, in use, when the rotatable outer distribution member, the rotatable indexing member and the connecting conduits are rotated, fluid fed to a fluid distribution chamber (18) is sequentially fed to each process chamber and returned from each process chamber to another fluid distribution chamber (22) as the indexing ports (30.2, 40.2) of the fixed indexing member (28).



Published:

— with international search report

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